Regulated Contaminants

Disinfectants and Disinfection By- Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Violation Likely Source of Contamination
Chlorine	12/31/2013	7.0	0.5 - 0.809	MRDLG = 4	MRDL = 4	<b></b>	N	Water additive used to control microbes.
Haloacetic Acids (HAAS)*	2013	13	4.3 - 14.1	No goal for the total	9	qđđ	z	By-product of drinking water disinfection.
Total Trihalomethanes (TTHM)	2013	38	13 - 56.13	No goal for the total	08	qđđ	Z	By-product of drinking water disinfection.
Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Barium	04/24/2008	0.06657	0.06657 -	23	7	wdd	z	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Fluoride	04/24/2008	0.325	0.325 - 0.325	4	4.0	mdd	z	Exosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Iron	04/24/2008	1.340258	1.340258 - 1.340258		1.0	mdd	И	This contaminant is not currently regulated by the USEPA. However, the state regulates. Erosion of natural deposits.
Manganese	04/24/2008	47.98	47.98 - 47.98	150	150	qđđ	z	This contaminant is not currently regulated by the USEPA. However, the state regulates. Erosion of natural deposits.
Sodium	04/24/2008	41628.44	41628.44 - 41628.44			wdd	N	Erosion from naturally occuring deposits: Used in water softener regeneration.
Radioactive Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Combined Radium 226/228	04/02/2008	2.16	2.16 - 2.16	٥	ហ	pCi/L	z	Erosion of natural deposits.
Gross alpha excluding radon and uranium	04/02/2008	13.2	13.2 - 13.2	0	15	pCi/L	И	Erosion of natural deposits.



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Residential Customer Crestwood, IL 60445

### VILLAGE OF CRESTWOOD

### ANNUAL WATER QUALITY REPORT

2013

### PART 1

**CONSUMER CONFIDENCE REPORT** 

Last year your tap water met all USEPA and State drinking water health standards. This report summarizes the quality of water that we provided in 2013, including details about where your water comes from, what it contains, and how it compares to standards set be the regulatory agencies.

If you have any questions about this report or concerning your water system, please contact The Village of Crestwood, at 708-371-4800. We want our valued customers to be informed about their water quality. If you would like to learn more, please feel welcome to attend any of our regular scheduled meetings on the first and third Thursday of every month at 8:00 p.m. at the Crestwood Civic Center, 14025 S. Kostner Ave., Crestwood, Illinois.

<u>Village of Crestwood water source:</u> The Village of Crestwood purchases water from the Village of Alsip, which is supplied by the City of Chicago.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the USEPA's Safe Drinking Water Hotline (1-800-426-4791).

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. USEPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the USEPA's Safe Drinking Water Hotline (1-800-426-4791).

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the surface of the land or through the ground, it can dissolve naturally occurring minerals and radioactive materials, and pick up substances resulting from the presence of animals or human activity. Possible contaminants consist of:

- <u>Microbial Contaminants</u>, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife;
- <u>Inorganic Contaminants</u>, such as salts and metals, which may be naturally occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming;
- <u>Pesticides and Herbicides</u>, which may come from a variety of sources such as agriculture, urban storm water runoff and residential use;
- Organic Chemical Contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial process and petroleum production, and may also come from gas stations, urban storm water runoff and septic systems; and
- Radioactive Contaminants, which may be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, USEPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

# Committee of the Whole and Board Meeting Dates

anuary	9 <sup>th</sup> and 23 <sup>rd</sup>	May	8 <sup>th</sup> and 22 <sup>nd</sup>	September	4th and 18th
bruary	6 <sup>th</sup> and 20 <sup>th</sup>	June	5 <sup>th</sup> and 19 <sup>th</sup>	October	9th and 23rd
<b>Aarch</b>	$6^{th}$ and $20^{th}$	July	17 <sup>th</sup>	November	$6^{th}$ and $20^{th}$
April	3 <sup>rd</sup> and 17 <sup>th</sup>	August	21 <sup>st</sup>	December	4th and 18th

Meetings are held at the Village Hall, 13840 South Cicero Avenue, Crestwood, IL 60445

### Regulated Contaminants Detected 2013

### Lead and Copper

Definitions:
Action Level Goal (ALG): The level of a contaminant in drinking water below which there is no known or expected risk to health. ALGs allow for a margin of safety.
Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

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Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90th Percentile	# Sites Over	Units	Violation	Likely Source of Contamination
Copper	08/15/2011	1.3	1.3	0.05	0	шďď	Z	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Lead	08/15/2011	0	15	н	0	qđđ	Z	Corrosion of household plumbing systems; Erosion of natural deposits.

## Water Quality Test Results

Maximum Contaminant Level Goal or MCLG:	Maximum Contaminant Level Goal or MCLG: The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.
Maximum Contaminant Level or MCL:	The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
Maximum residual disinfectant level goal or MRDLG:	The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.
Maximum residual disinfectant level or MRDL:	The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.
Definitions:	The following tables contain scientific terms and measures, some of which may require explanation.
:qđđ	micrograms per liter or parts per billion - or one ounce in 7,350,000 gallons of water.

Regulatory compliance with some MCLs are based on running annual average of monthly samples.

not applicable.

Avg: : mdd

na:

milligrams per liter or parts per million - or one ounce in 7,350 gallons of water.

# Annual Drinking Water Quality Report

CRESTWOOD

IL0310600

Annual Water Quality Report for the period of January 1 to December 31, 2013 This report is intended to provide you with important information about your drinking water and the efforts made by the water system to provide safe drinking water.

The source of drinking water used by CRESTWOOD is Purchased Surface Water

For more information regarding this report contact:

Name Crestwood Water Department

708-371-4800

Este informe contiene información muy importante sobre el agua que usted bebe. Tradúzcalo ó hable con alguien que lo entienda bien.

## Source of Drinking Water

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pickup substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:
 Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

- Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.

Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.

Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems.

- Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be boblined by calling the EPAs Safe Drinking Water Hotline at (800) 426-4791.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Some people may be more vulnerable to contaminants in drinking water than the general population.

Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergoing chemotherapy, persons who have undergoine organ transplants, people with HIV/AIDS or other immune system disorders, some elderly and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Mater Hotline (800-426-4791).

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. We cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water tested. Information on lead in drinking water exposure is available from the Safe Drinking Water Hotline or at http://www.epa.gov/safewater/lead.

Source Water Information

Source Water Name

CC 01-PUMP STATION AT 12821 CAL SAGFF IL0310030 TP01: LAKE

Type of Water Report Status Location

SW

Source Water Assessment

scheduled meetings. The source water assessment for our supply has been completed by the Illinois EPA. If you would like a copy of this information, please stop by City Hall or call our water operator at 108-371-4800 To view a summary version of the completed Source Water Assessments, including: Importance of Source Water; Susceptibility to Contamination Determination; and documentation/recommendation of Source Water Protection Efforts, you may access the Illinois EPA website at http://www.epa.state.il.us/cgi-bin/wp/swap-fact-sheets.pl.

The Illinois EPA considers all surface water sources of community water supply to be susceptible to potential pollution problems. The very nature of surface water allows contaminants to migrate into the intake with no protection only dilution. This is the reason for mandatory treatment for all surface water supplies in Illinois. Chicago's offshore intakes are located at a distance that shoreline impacts are not usually considered a factor on water quality. At certain times of the year, however, the potential for contamination exists due to wet-weather flows and river reversals. In addition, the placement of the crib structures may serve to attract waterfowl, gulls and terns that frequent the Great Lakes area, thereby concentrating fecal deposits at the intake and thus componising the source water quality. Conversely, the shore intakes are highly susceptible to storm water runoff, marinas and shoreline point sources due to the influx of groundwater to the lake.

### PART 2

### CONSUMER CONFIDENCE REPORT



### -Definition of Terms-

<u>Maximum Contaminant Level Goal (MCLG):</u> The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

<u>Maximum Contaminant Level (MCL)</u>: The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

<u>Maximum Residual Disinfectant Level Goal (MRDLG):</u> The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use disinfectants to control microbial contaminants.

<u>Maximum Residual Disinfectant Level (MRDL):</u> The highest level of a drinking water disinfectant allowed in drinking water.

There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

<u>Highest Level Detected:</u> This column represents the highest single sample reading of a contaminant of all the samples collected in 2009. <u>Range of Detections:</u> This column represents a range of individual sample results, from lowest to highest that were collected during the CCR calendar year.

<u>Date of Sample:</u> If a date appears in this column, the Illinois EPA requires monitoring for this contaminant less than once per year because the concentrations do not frequently change. If no date appears in the column, monitoring for this contaminant was conducted during the Consumer Confidence Report calendar year.

<u>Action Level (AL):</u> The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water

<u>ND:</u> Contaminant Not Detected at or above the reporting or testing limit. <u>N/A:</u> Not applicable

### **Detected Contaminants**

Contaminant (unit of measurement)			Highest Level	Range of		Date of
Typical Source of Contaminant	MCLG	MCL	Detected	Detections	Violation	Sample

### **Turbidity Data**

		(Lov	est Monthly %)	
TURBIDITY (NTU/Lowest Monthly %≤0.3 NTU) Soll runoff	N/A	TT(95%≤0.3NTU)	100%	100% – 100.0%
TURBIDITY (NTU/Highest Single Measurement) Soll runoff	N/A	TT(1NTUmax)	0.18	N/A
Inorganic Contaminants				
BARIUM (ppm)  Discharge of drilling wastes; Discharge from metal refineries;  Erosion of natural deposits	2	2	0.0205	0.0204 - 0.0205
ARSENIC (ppb) Erosion of natural deposits; runoff from orchards; Runoff from glass and electronics production wastes	0	10	0.77	0.519 - 0.767
SELENIUM (ppb) Discharge from petroleum and metal refinerles; Erosion of natural deposits; Discharge from mines.	50	50	2.48	ND – 2.48
NITRATE (AS NITROGEN) (ppm) Runoff from fertil lizer use; Leaching from septic tanks, sewage: Erosion of natural deposits	10	10	0.362	0.351 - 0.362
TOTAL NITRATE & NITRITE (AS NITROGEN) (ppm) Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits	10	10	0.362	0.351 - 0.362

### **Detected Contaminants Continued**

Contaminant (unit of measurement)			Highest Level	Range of		Date of
Typical Source of Contaminant	MCLG	MCL	Detected	Detections	Violation	Sample

### Total Organic Carbon

TOC [TOTAL ORGANIC CARBON]

The percentage of Total Organic Carbon (TOC) removal was measured each month and the system met all TOC removal requirements set by IEPA.

### **Unregulated Contaminants**

SULFATE (ppm) Erosion of naturally occurring deposits	N/A	N/A	11.9	ND – 11.9	
SODIUM (ppm) Erosion of naturally occurring deposits; Used as water softener.	N/A	N/A	7.84	7.42 – 7.84	
State Regulated Contaminants  FLUORIDE (ppm)  Water additive which promotes strong teeth	4	4	0.9	0.856 - 0.922	
Radioactive Contaminants					
COMBINED RADIUM 226/228 (pCi/L)	0	5	1.38	1.30 - 1.38	03-17-2008
Decay of natural and man-made deposits.					
GROSS ALPHA excluding radon and uranium (pCi/L)	0	15	0.88	0.09 - 0.88	03-17-2008
Decay of natural and man-made deposits.					

### Unit of Measurement

ppm - Parts per million, or milligrams per liter

ppb - Parts per billion, or micrograms per liter

NTU - Nephelometric Turbidity Unit, used to measure cloudiness in drinking water

%≤0.3 NTU - Percent of samples less than or equal to 0.3 NTU

pCI/L - Picocuries per liter, used to measure radioactivity

### Water Quality Data Table Footnotes

### TURBIDITY

Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of water quality and the effectiveness of our filtration system and disinfectants.

### **UNREGULATED CONTAMINANTS:**

A maximum contaminant level (MCL) for this contaminant has not been established by either state or federal regulations, nor has mandatory health effects language. The purpose for monitoring this contaminant is to assist USEPA in determining the occurrence of unregulated contaminants in drinking water, and whether future regulation is warranted.

### FLUORIDE

Fluoride is added to the water supply to help promote strong teeth. The Illinois Department of Public Health recommends an optimal fluoride range of 0.9 mg/l to 1.2 mg/l.

### SODIUM

There is no state or federal MCL for sodium. Monitoring is required to provide information to consumers and health officials who have concerns about sodium intake due to dietary precautions. If you are on a sodium-restricted diet, you should consult a physician about the level of sodium in the water.

### CITY OF CHICAGO, DEPARTMENT OF WATER MANAGEMENT SOURCE WATER ASSESMENT SUMMARY FOR THE 2013 CONSUMER CONFIDENCE REPORT (CCR)

### **Source Water Location**

The City of Chicago utilizes Lake Michigan as its source water via two water treatment plants. The Jardine Water Purification Plant serve the northern areas of the City and suburbs, while the South Water Purification Plant serves the southern areas of the City and suburbs. Lai Michigan is the only Great Lake that is entirely contained within the United States. It borders Illinois, Indiana, Michigan, and Wisconsin, as is the second largest Great lake by volume with 1,180 cubic miles of water and third largest by area.

### Source Water Assessment Summary

The Illinois EPA implemented a Source Water Assessment Program (SWAP) to assist with watershed protection of public drinking wat supplies. The SWAP inventories potential sources of contamination and determined the susceptibility of the source water to contaminatio The Illinois EPA has completed the Source Water Assessment Program for our supply. Further information on our community water supply Source Water Assessment Program is available by calling the City of Chicago, Department of Water Management at 312-742-7499.

### Susceptibility to Contamination

The Illinois EPA considers all surface water sources of community water supply to be susceptible to potential pollution problems. The venture of surface water allows contaminants to migrate into the intake with no protection only dilution. This is the reason for mandator treatment of all surface water supplies in Illinois. Chicago's offshore intakes are located at a distance that shoreline impacts are not usuall considered a factor on water quality. At certain times of the year, however, the potential for contamination exists due to wet-weather flow and river reversals. In addition, the placement of the crib structures may serve to attract waterfowl, gulls and terns that frequent the Great Lakes area, thereby concentrating fecal deposits at the intake and thus compromising the source water quality. Conversely, the shore intake are highly susceptible to storm water runoff, marinas and shoreline point sources due to the influx of groundwater to the lake.

Further information on our community water supply's Source Water Assessment Program is available by calling the City of Chicago Department of Water Management at 312-742-7499.

### 2013 VOLUNTARY MONITORING

The City of Chicago has continued monitoring for Cryptosporidium, Giardia and E. coli in its source water as part of its water qualit program. To date, Cryptosporidium has not been detected in these samples, but Giardia was detected in 2010 in one raw lake water sampl collected in September 2010. Treatment processes have been optimized to provide effective barriers for removal of Cryptosporidium oocyst and Giardia cysts in the source water, effectively removing these organisms in the treatment process. By maintaining low turbidity through the removal of particles from the water, the possibility of Cryptosporidium and Giardia organisms getting into the drinking water system i greatly reduced.

In 2013, CDWM has also continued monitoring for hexavalent chromium, also known as chromium-6. USEPA has not yet established a standard for chromium-6, a contaminant of concern which has both natural and industrial sources. Please address any questions or concerns to DWM's Water Quality Division at 312-742-7499. Data reports on the monitoring program for chromium-6 are posted on the City's website which can be accessed at the following address below:

http://www.cityofchicago.org/city/en/depts/water/supp\_info/water\_quality\_resultsandreports/city\_of\_chicago\_emergincontaminantstudy.htm

### 2013 Violation Summary Table

We are pleased to announce that no monitoring, reporting, treatment technique, maximum residual disinfectant level, or maximum contaminant level violations were recorded during 2013.